

Catch Statistics and the Abundance of Nehu,

Stolephorus purpureus, in Kaneohe Bay

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Suggested Abstract

Catch and nominal effort statistics from the Kaneohe Bay  
Day-Baiting Fishery for nehu, Stolephorus purpureus, were used to  
explore hypotheses concerning two sources of variation in baiting  
success: 1) nehu stock abundance and 2) abiotic environmental  
variables. Baiting success was found to be positively correlated  
with streamflow in a major tributary to Kaneohe Bay, but was unrelated  
to nominal baiting effort. However, the assumptions underpinning the  
analyses cannot be accepted with confidence, because the available  
nominal effort data do not provide a good measure of effective baiting  
effort. A definitive understanding of nehu stock dynamics will require  
changes in data collection practices of the Hawaii Division of Fish and  
Game. In particular, detailed information on catch per set of the bait  
seine and on size composition of the nehu stock and catch are needed.